LUZENAC AMERICA
SAPPINGTON MILL
CHECKLIST ENVIRONMENTAL ASSESSMENT
FOR
MINOR REVISION 03-002

COMPANY NAME: **Luzenac America, Sappington Mill, 28769 Sappington Road, Three Forks, MT 59752.**

PROJECT: **Proposed Minor Revision (MR) 03-002 to Operating Permit 00127 for the Luzenac America Sappington Mill to construct a talc slurry circuit onto the existing mill complex.**

LOCATION: **Fourteen miles southwest of Three Forks, MT, off Highway 287 in Section 31, Township 1 North, Range 1 West.**

COUNTY: **Gallatin**

PROPERTY OWNERSHIP: **[ ] Federal [ ] State [X] Private**

TYPE AND PURPOSE OF ACTION: **Luzenac America (Luzenac) filed an application on August 28, 2003, for a minor revision to Operating Permit 00127 from the Montana Department of Environmental Quality (DEQ), Environmental Management Bureau. Luzenac mines talc from the Yellowstone Mine in Madison County near Cameron, which is south of Ennis, MT. Luzenac hauls the talc to its Three Forks or Sappington mill in Gallatin County for processing. The existing operating permit area at the Sappington Mill is 56.3 acres.**

The minor revision would allow the addition of a talc slurry circuit onto the existing Sappington Mill complex. The slurry circuit would be housed within an approximately 36-ft by 50-ft addition to the east end of the current processing plant. An approximately 15-ft by 20-ft addition to the existing motor control center would also be required. An additional well has been drilled to provide water for the circuit. All of these activities have occurred or would occur on already permitted and disturbed areas. Therefore, no new disturbances would occur as a result of these proposed actions.

The minor revision could increase mine employment by up to three workers, depending on market conditions. Overall mill production rates would not change. The minor revision would not disturb any new land. The reclamation bond would increase from $41,000 to $93,000 to cover the additional potential reclamation cost of diluting, pumping, and disposing of slurry and cleaning out slurry tanks at closure. The other site improvements would be left as post-mine industrial/agricultural use areas for the ranch which is leasing the property to Luzenac or an alternate post-mine industrial use on the railroad lease held on the mill site.

DEQ must decide whether to approve the Proposed Action, deny the Proposed Action (the No-Action Alternative), or approve the Proposed Action with Agency Modifications. This environmental analysis is being conducted pursuant to the Montana Environmental Policy Act (MEPA).

PERMITTING HISTORY: **The Sappington Mill is currently permitted under Montana Metal Mine Reclamation Act (MMRA) Operating Permit 00127. Operating Permit 00127 was issued on April 18, 1985 by the Montana Department of State Lands (DSL) for 237 acres at the Johnny Gulch Mine south of Cameron and for 16 acres at the Sappington Mill Complex. The operating permit was issued to the Montana Talc Company.**

The mine and mill were eventually purchased by Luzenac in 1994. The mine was removed from Operating Permit 00127 for administrative reasons, and is now covered under Operating Permit 00005.

Operating Permit 00127 has been modified several times since 1985. The complete permit history is in DEQ files. The mill complex is presently permitted for 35.2 acres of disturbance. The mill complex is presently bonded for reclamation of only 5.4 acres. The rest of the site would be left as a post-mine industrial/ agricultural area. The current bond is $41,000 and was updated in August 2000.

PROPOSED PLAN: **Luzenac proposes to install a new processing circuit at the Sappington Mill to manufacture talc-based slurry products. These talc slurries would be manufactured from a dry powder feed combined with water and chemical stabilizers to produce value-added products. The products would be shipped primarily in rail tank cars.**

An approximately 36-ft x 50-ft x 37-ft addition to the east end of the processing plant would house storage tanks, slurry pumps, and various stabilizers. A 15-ft x 20-ft addition to the east end of the existing motor control center would be built to house new motor controls and secondary distribution for the additional electrical load. Both buildings would be conventional metal-clad structural steel and would be insulated.

A new water well has been drilled.

There would be no discharge from the talc slurry circuit as all water would be recycled. All activities would occur within the existing permit boundary on previously disturbed ground.

The new building would be constructed to provide secondary containment for the chemical storage facilities and the talc slurry. The joint between the concrete pad and concrete stem walls would be sealed to provide a 36-ft x 50-ft x 3-ft secondary containment system. The containment volume of 40,000 gallons would be over twice the volume of the largest storage tank. A common secondary containment system is adequate for the stabilizers because no adverse reactions producing volatilization, combustible materials, or other problems would occur should they be mixed together.

A 6-ft x 6-ft x 6-ft sump pit would be constructed near the center of the secondary containment area. A submersible pump would be installed in the sump pit to capture and transfer any spilled materials.

Ore would continue to be delivered from the Yellowstone Mine in over-the-road tractor trailers via Montana Highway 287. Minor amounts of other ores are delivered to the mill via railroad. Currently, 350,000 tons of ore per year are hauled to the Sappington or Three Forks mills.

The liquid stabilizers would initially be delivered by trucks in reusable liquid totes. All totes

would be stored within the secondary containment area. Some stabilizers may be delivered in dry form. They would be stored and mixed in the secondary containment area.

Stabilizers, talc, and water would be transferred into the slurry process with chemical metering pumps to verify volumes and prevent overfilling.

All chemicals delivered to the site would be unloaded and transferred to the slurry facility on concrete or paved surfaces. Department of Transportation requirements would be followed.

The feed to the slurry system would be dry ground talc powder. Water would be added, and the mixture would be paste milled. More water and chemical stabilizers would be added to the paste to complete the process. The slurry would be stored in tanks. Rail cars would be loaded from the storage tanks.

The talc slurries would be shipped by rail in tank cars. One to three rail cars per day would be loaded and shipped. A rail loading safety platform would allow safe access to the top of the tank cars and would also carry a counter-weighted loading arm equipped with one or more high-level failsafe switches to prevent overfilling of the tank cars. The piping would be 4-inch aerial stainless steel with structural steel supports.

The slurry formulations are proprietary information and/or trade secrets. A list of the stabilizers that would be used was shown to DEQ personnel during a recent site visit.

Appendix 1 is a Material Safety Data Sheet (MSDS) for the various talc slurry products. The products are considered non-hazardous. The slurries would consist of 55-65 percent talc, 35-45 percent water, and less than 1 percent non-hazardous additives. The pH would be less than 11.5, so the slurry products would not be regulated by the Department of Transportation. The slurries would not contain toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

Appendix 2 is a Toxicity Characteristic Leaching Procedure (TCLP) analysis of the talc slurry products. The sample was taken from the floor sump in the pilot plant. The sample was a combination of the various talc slurry products. Only rock constituents were analyzed because the chemical stabilizers used are not on the TCLP constituent list.

The Sappington Mill has both Spill/Release and Emergency Notification procedures in place for all types of spills. Employees would be trained in the safe handling of the stabilizers and the use of personal protective equipment. The slurries do not contain toxic chemicals. However, all spills of consequence, regardless of whether they constitute reportable quantities, would be reported to DEQ.

Operating Permit conditions before and after Minor Revision 03-002 approval:

	Current Conditions	Minor Revision 03-002
Permit Area:	**56.3 acres**	**56.3 acres**
Permitted Disturbance:	**35.2 acres**	**35.2 acres**
Current Disturbance (as of December 2000)	**32 acres**	**32 acres**
Acreage Currently Bonded	**19.5 acres**	**19.5 acres**
	(Acres to reclaim 3.9)	**(Acres to reclaim 5.4)**
Current Bond:	**$41,000**	**$93,000**

PERMIT HISTORY AND PREVIOUS ENVIRONMENTAL ANALYSES:

PERMIT HISTORY

Permit/Amendment/ Minor Revision	Date	Permitted Acres
Operating Permit 00127	**April 18, 1985**	**253 acres**
Amendment 001	**July 1985**	**8-acre mill site reduction and added mill access road**
Amendment 002	**December 18, 1985**	**66-acre mine site reduction and change in waste rock dump design and location**
Amendment 003	**November 12, 1986**	**Added temporary ore storage area north of mill**
Amendment 004	**May 19, 1987**	**Added spur road and second pit to mine permit**
Amendment 004 Revision 1	**August 6, 1987**	**Interception and disposal of pit water**
Amendment 005	**August 25, 1988**	**24.07-acre mine waste rock dump expansion and 14-acre mill site expansion**
Amendment 006	**May 12, 1992**	**7-acre mill expansion and new warehouse**
Minor Revision 98-001	**July 8, 1998**	**Evaporation Pond**
Minor Revision 01-001	**April 9, 2001**	**New storage building**
Amendment 007(MR03-001)	**March 19, 2003**	**New truck route, drainfields**

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
1. <u>GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE</u>: Are soils present which are fragile, erodible, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	**[N] There would be no new disturbance at the mill site.**
2. <u>WATER QUALITY, QUANTITY AND DISTRIBUTION</u>: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	**[N] Luzenac has spill containment procedures in place at the mill to prevent reagents from being spilled and released into the ground, which could report to groundwater. The slurry is non-hazardous material. If a slurry spill were to occur while loading railcars, Luzenac has a spill cleanup plan in place. All reagents would be handled according to Department of Transportation requirements.** **Another water well has been drilled to supply about 1.1 million cubic feet per year of non-potable water for the talc slurry process. The water table is about 11 feet below the surface. A water right application has been filed.**
3. <u>AIR QUALITY</u>: Will pollutants or particulates be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	**[N] No increase in dust would occur from the wet slurry process. All roads in the mill area are paved.**
4. <u>VEGETATION COVER, QUANTITY AND QUALITY</u>: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	**[N] Luzenac would continue its noxious weed control activities annually.**
5. <u>TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS</u>: Is there substantial use of the area by important wildlife, birds or fish?	**[N] No animals would have access to the slurry in the closed loop system.**

IMPACTS ON THE PHYSICAL ENVIRONMENT	
6. <u>UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES</u>: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	**[N]**
7. <u>HISTORICAL AND ARCHAEOLOGICAL SITES</u>: Are any historical, archaeological or paleontological resources present?	**[N]**
8. <u>AESTHETICS</u>: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	**[N]**
9. <u>DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY</u>: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	**[N]**
10. <u>IMPACTS ON OTHER ENVIRONMENTAL RESOURCES</u>: Are there other activities nearby that will affect the project?	**[N]**

IMPACTS ON THE HUMAN POPULATION	
11. <u>HUMAN HEALTH AND SAFETY:</u> Will this project add to health and safety risks in the area?	**[N] Luzenac has a spill response plan, and all the reagents in the mill are stored in secondary containment areas. None of the components of the talc slurry is hazardous, and no adverse reactions producing volatilization, combustible**

IMPACTS ON THE HUMAN POPULATION	
	materials, or other problems would occur should they be mixed together. The Mine Health and Safety Administration inspects the mill for worker safety concerns.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	**[N] Agricultural and industrial activities outside of the mill would not be affected. The proposal would allow Luzenac to develop new markets for its talc.**
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	**[Y] The project could add up to three new jobs, depending on market conditions.**
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	**[N]**
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	**[N] The truck traffic resulting from the new slurry process is within approved levels.**
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	**[N] The proposed activity complies with the local management plans for the area. The proposed action complies with all local, state and federal laws. Milling has been a historic use of the area since 1985.**
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	**[N]**
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:	**[N]**

IMPACTS ON THE HUMAN POPULATION	
Will the project add to the population and require additional housing?	
19. <u>SOCIAL STRUCTURES AND MORES</u>: Is some disruption of native or traditional lifestyles or communities possible?	**[N] There would be no impacts to Native Americans as a result of this minor revision.**
20. <u>CULTURAL UNIQUENESS AND DIVERSITY</u>: Will the action cause a shift in some unique quality of the area?	**[N]**
21. <u>PRIVATE PROPERTY IMPACTS</u>: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	**[Yes] This proposed action would be permitted under the authority of the Metal Mine Reclamation Act.**
22. <u>PRIVATE PROPERTY IMPACTS</u>: Does the proposed regulatory action restrict the use of the regulated person's private property? If not, no further analysis is required.	**[No]**
23. <u>PRIVATE PROPERTY IMPACTS</u>: Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze	**[NA]**

IMPACTS ON THE HUMAN POPULATION	
such alternatives.	
24. <u>OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES</u>:	**[N]**

N = Not present or No Impact will occur.
Y = Impacts may occur (explain under Potential Impacts).
NA = Not applicable

25. <u>ALTERNATIVES CONSIDERED</u>:

No Action: If the minor revision is denied, Luzenac would continue mining and milling according to the existing approved operating permits. The slurry process would not be added to the mill building.

Proposed Action: This is the company's proposed plan to develop the slurry circuit in the mill.

Proposed Action with Agency Modifications: The following agency modifications to the Proposed Action would be required:

1. **Luzenac must monitor all wells on the Sappington Mill property for water quality at least once a year and submit results in the annual reports.**
2. **Luzenac must submit a replacement for page 7 of the permit that adds the following language to section 2.9:**
   "All water wells on site will be sampled for water quality at least once a year. These sample data will be submitted to DEQ in the Annual Reports."
3. **Luzenac must submit a replacement for page 15 of the permit that adds the following language in section 2.24:**
   "Luzenac is required to sample all process wells at least once a year and sample for nitrates, nitrite, inorganics, VOCs, SOCs, herbicides, pesticides, etc."

26. <u>PUBLIC INVOLVEMENT</u>: A legal notice was published in the Bozeman Daily Chronicle, Madisonian, and Montana Standard newspapers. The legal notice was also posted on the DEQ-EMB webpage. A press release was issued on the State of Montana Newslink service.

27. <u>OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION</u>: None.

28. <u>MAGNITUDE AND SIGNIFICANCE OF POTENTIAL IMPACTS</u>: The impacts resulting from the new slurry circuit would not result in potentially significant impacts to the environment.

29. REASONABLY FORESEEABLE ACTIVITIES: The only reasonably foreseeable activities in the area would be continued use of the surrounding land for agricultural purposes.

30. CUMULATIVE EFFECTS: No cumulative effects on area resources from the combined current and reasonably foreseeable activities envisioned in the Sappington Mill area are projected.

31. RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist Prepared By:

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Greg Hallsten, MEPA Coordinator, DEQ

EA Reviewed by:

Warren McCullough, Chief, Environmental Management Bureau, DEQ

Approved By:

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Signature **Date**
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